

Despite record-breaking warm temperatures in parts of the country, winter is here, accompanied by the usual arrival of snow, ice and the hazardous roads such weather produces. While winter can be an enjoyable time of year, we must take special care of our vehicles and pay particular attention to our driving during these colder months to stay safe on the road.

### Service your vehicle now.

No one wants to break down in any season, but especially not in cold or snowy winter weather. Start the season off right by ensuring your vehicle is in optimal condition.

- Visit your mechanic for a tune-up or other routine maintenance.
- Have your entire vehicle checked thoroughly for any leaks, bad hoses, or other needed part repairs or replacements. Be sure to check the fluid levels, tires, hoses and belts at least once a month. The transition from summer to winter places a large strain on many parts of your vehicle.
- If you plan to use snow tires, have them installed now. Check out
  www.safercar.gov for tire ratings before purchasing new ones. For existing
  tires, check to ensure they're properly inflated (as recommended by your
  vehicle manufacturer), the tread is sufficient with no uneven wear, and that the
  rubber is in overall good condition. Note that tire rubber starts to degrade after
  several years, and tires need to be replaced even if they have not seen much wear.

## Check your battery.

When the temperature drops, so does battery power. Plus, it takes more power to start your vehicle in cold weather than in warm. Find out if your battery is up to the challenges of winter:

- Have your mechanic check your battery for sufficient voltage.
- Have the charging system and belts inspected.
- If necessary, replace the battery and/or make system repairs.



## Check your cooling system.

When coolant freezes, it expands. Such expansion can potentially damage your vehicle's engine block beyond repair. Don't let this happen to your vehicle this winter!

- Make sure you have enough coolant in your vehicle and that it's designed to withstand the winter temperatures you might experience in your area.
- A 50/50 mix of coolant to water is sufficient for most regions of the country.
   See your vehicle owner's manual for specific recommendations.
- Thoroughly check the cooling system for leaks or have your mechanic do it for you.
- If your system hasn't been "flushed" (draining the system and replacing the
  coolant) for several years, have it done now. Over time, rust inhibitors in antifreeze break down and become ineffective. Coolant also needs to be refreshed
  periodically to remove dirt and rust particles that can clog the cooling system
  and cause it to fail.

#### Fill the washer reservoir.

You can go through a lot of windshield wiper fluid fairly quickly in a single snowstorm, so be prepared for whatever Mother Nature might send your way.

- Completely fill your vehicle's reservoir before the first snow hits.
- Use high-quality, "no-freeze" fluid.
- Buy extra to keep on hand in your vehicle.

# Keep windows and mirrors clean.

Safe winter driving depends on achieving and maintaining the best visibility possible. Good visibility is always important, but even more so during the winter months when road conditions can make driving extremely hazardous.

- Scraping a small patch to see through the windshield isn't good enough. Before you drive, remove ice and snow from all of your vehicle's windows and mirrors.
- Also, clear snow and ice from your vehicle's roof and hood. Snow or ice left on
  the vehicle can blow up onto your windshield while driving, blocking your view
  and can even block the view or damage the car behind you

# Check your windshield wipers and defrosters.

The summer has a tendency to dry-out wiper blades, making them brittle enough to crack and come apart. Now is the time to change your windshield wipers before you get caught in the rain or in a snowstorm.

- Make sure your windshield wipers work and replace worn blades.
- If you live in an area that gets a lot of snow and ice, consider installing heavyduty winter wipers.
- Check to see that your window defrosters (front and rear) work properly.

#### **Inspect your tires.**

Regardless of the season, you should inspect your tires at least once a month and always before embarking on a long road trip. It only takes about five minutes. If you find yourself driving under less-than-optimal road conditions this winter, you'll be glad you took the time!

- Check tire pressure and make sure each tire is filled to the vehicle manufacturer's suggested PSI (pounds per square inch) of air pressure, which is listed in your owner's manual and on a label inside the driver's door.
- Keep a tire pressure gauge in your vehicle at all times and check pressure when tires are "cold" meaning they haven't been driven on for at least three hours.
- Look closely at your tread and replace tires with uneven wear or insufficient tread. Tread should be at least 1/16 of an inch or greater on all tires.

### Know your vehicle.

Every vehicle handles somewhat differently; this is particularly true when driving on wet, icy, or snowy roads. Take time now to learn how to best handle your vehicle under winter weather driving conditions.

- Practice cold weather driving when your area gets snow but not on a main road! Until you've sharpened your winter weather driving skills and know how your vehicle handles in snowy conditions, it's best to practice in an empty lot in full daylight.
- Drive slowly. It's harder to control or stop your vehicle on a slick or snow-covered surface. On the road, sufficiently increase your following distance to provide a safety cushion between your vehicle and others on the road. Braking time is slower in these conditions, and you must allow yourself more room.
- A word of caution about braking: Know what kind of brakes your vehicle has and how to use them properly. In general, if you have anti-lock brakes, apply firm pressure, if you have non anti-lock brakes, pump the brakes gently.
- If you find yourself in a skid, stay calm and ease your foot off the gas while
  carefully steering in the direction you want the front of your vehicle to go. This
  procedure, known as "steering into the skid," will bring the back end of your car
  in line with the front.













## Stock your vehicle.

Carry items in your vehicle to handle common winter driving tasks — such as cleaning off your windshield — as well as any supplies you might need in an emergency. Keep the following on hand:

- Snow shovel, broom, and ice scraper.
- Abrasive material, such as sand or kitty litter, in case your vehicle gets stuck in the snow.
- Jumper cables, flashlight and warning devices, such as flares and markers.
- Blankets for protection from the cold.
- A cell phone, water, food, and any necessary medicine (for longer trips or when driving in lightly populated areas).

### Plan ahead, know your travel route and allow extra travel time.

Keep yourself and others safe by planning ahead before you venture out into bad weather. Driving in bad weather usually takes longer and is more stressful.

- Check the weather, road conditions, and traffic; plan to leave early if necessary.
- Don't rush! Allow plenty of time to get to your destination safely.
- Familiarize yourself with directions and maps before you go, and let others know your route and anticipated arrival time.
- Keep your gas tank close to full. If you get stuck in a traffic jam or in snow, you
  might need more fuel to get home or keep warm.
- If road conditions are hazardous, avoid driving if possible. Wait until road and weather conditions improve before venturing out in your vehicle.

# Know what to do in a winter emergency.

If you are stopped or stalled in wintry weather, follow these safety rules:

- Stay with your car and don't overexert yourself.
- Put bright markers on the antenna or windows and keep the interior dome light turned on.

To avoid asphyxiation from carbon monoxide poisoning, don't run your car for long periods with the windows up or in an enclosed space. If you must run your vehicle, clear the exhaust pipe of any snow and run it only sporadically — just long enough to stay warm!